

12 KAR 4:080. Plant nutrient guarantees and labeling.

RELATES TO: KRS 250.366(7), 250.371 – 250.451

STATUTORY AUTHORITY: KRS 250.366(7), 250.421

NECESSITY, FUNCTION, AND CONFORMITY: KRS 250.366(7) authorizes the Kentucky Agricultural Experiment Station Director to promulgate administrative regulations for the inspection and analysis of plant nutrient guarantees. KRS 250.421 requires the director to promulgate administrative regulations necessary to implement KRS 250.371 through 250.451. This administrative regulation establishes requirements for plant nutrient labeling requirements.

Section 1. Plant Nutrient Guarantees. Plant nutrients, additional to nitrogen, phosphorus, and potassium, referenced by fertilizer labeling or information provided with a fertilizer shall be registered and guaranteed pursuant to this administrative regulation. Except guarantees for water-soluble nutrients labeled for ready-to-use foliar fertilizers, ready-to-use specialty liquid fertilizers, hydroponic or continuous liquid feed programs and guarantees for potting soils, garden soils, lawn soils, and any other growing media product labeled with a fertilizer guaranteed analysis, the minimum elemental percentages shall be as established in the Table established in this section.

| Element | Percent |
|-----------------|---------|
| Calcium (Ca) | 1.00 |
| Magnesium (Mg) | 0.50 |
| Sulfur (S) | 1.00 |
| Boron (B) | 0.02 |
| Chlorine (Cl) | 0.10 |
| Cobalt (Co) | 0.0005 |
| Copper (Cu) | 0.05 |
| Iron (Fe) | 0.10 |
| Manganese (Mn) | 0.05 |
| Molybdenum (Mo) | 0.0005 |
| Nickel (Ni) | 0.0010 |
| Sodium (Na) | 0.10 |
| Zinc (Zn) | 0.05 |

(1) Guarantees and claims shall not be referenced by fertilizer labeling or information provided with a fertilizer for elements other than those established in the Table established in this section.

(2) Except for nitrogen, phosphorus, and potassium, if present and that shall be listed first, guaranteed elements referenced by fertilizer labeling or information provided with a fertilizer shall be listed in the order established in the Table established in this section.

(3) The elements established in this section shall be guaranteed on their elemental basis and are the only ones that shall be accepted.

(4) Sources of the elements guaranteed and proof of availability shall be provided upon request.

Section 2. Fertilizer Labels.

(1) Fertilizer labels or information provided with a fertilizer shall be legible and conspicuous and shall include:

- Net Weight;
- Brand and grade, except grade shall not be required if primary nutrients are not claimed;
- Under the heading of Guaranteed Analysis;

| | |
|--|---|
| Total Nitrogen (N) | % |
| Available Phosphate (P ₂ O ₅) | % |
| Soluble Potash (K ₂ O) | % |
| Other Nutrients, Elemental Basis | % |

1. If the percentage is zero, the nutrient shall be omitted from the statement, except in nutrient guarantee breakdowns.

2. If the chemical forms of nitrogen are claimed, the form shall be guaranteed in the format established in the Table established in this subparagraph, and the percentages of the individual forms shall add up to the total nitrogen percentage. Implied order of the forms of nitrogen is not intended.

| | | |
|---|---|---|
| | Total Nitrogen (N) | % |
| % | Ammoniacal Nitrogen | |
| % | Nitrate Nitrogen | |
| % | Water Insoluble Nitrogen | |
| % | Urea Nitrogen | |
| % | Other Recognized and Determinable Forms of Nitrogen | |

(d) The source or sources of the guaranteed elements that, if shown on the fertilizer labeling or information provided with a fertilizer, shall be listed below the completed guaranteed analysis statement; and

(e) Name and address of registrant or licensee.

(2) For packaged products, Fertilizer Labels shall:

(a) Appear on the front or back of the package;

(b) Occupy at least the upper third of a side of a package; or

(c) Be printed on a tag and attached to the package.

(3) If the chemical form of a plant nutrient is guaranteed, the percentage for each component shall be shown before the name of the form, as in the following example:

| | |
|---------------------------------|-------|
| Total Nitrogen (N) | 34% |
| 17% Nitrate Nitrogen | |
| 17% Ammoniacal Nitrogen | |
| Magnesium (Mg) | 2.0% |
| 1% Water Soluble Magnesium (Mg) | |
| Sulfur (S) | 10.0% |
| 5% Free Sulfur (S) | |
| 5% Combined Sulfur (S) | |
| Iron (Fe) | 2.0% |
| 2% Chelated Iron (Fe) | |

Section 3. Beneficial Substances and Beneficial Compounds.

(1) Beneficial substances or beneficial compounds guarantees shall be listed below the guaranteed analysis statement under one (1) of the following headings; "Also Contains Beneficial Substances", "Also Contains Beneficial Compounds", or "Also Contains NonPlant Food Ingredients."

(2) The percentage for each beneficial substance or beneficial compound shall be shown after the name of the form, as in the following examples:

(a) Also Contains Beneficial Substances (Compounds)

| | | | | |
|------------|------|---|----|------------|
| Beneficial | Sub- | % | or | acceptable |
|------------|------|---|----|------------|

| | |
|---|-------------------------------|
| stance | units |
| Purpose Statement: | |
| (b) Also Contains NonPlant Food Ingredients | |
| Beneficial stance | Sub- % or acceptable units |
| Purpose Statement: | |

(3) For the beneficial substance, Silicon, the guarantee shall be "Soluble Silicon (Si)." The method of determination of Soluble Silicon shall be from the Journal of AOAC International, Volume 96, No.2, 2013.

Section 4. The term of "percentage" by symbol or word, when used on fertilizer labeling shall represent only the amount of individual plant nutrients in relation to the total product by weight.

Section 5. Incorporation by Reference.

(1) "Journal of AOAC International", Volume 96, No. 2, 2013, "A 5-Day Method for Determination of Soluble Silicon Concentrations in Nonliquid Fertilizer Materials Using a Sodium Carbonate-Ammonium Nitrate Extractant Followed by Visible Spectroscopy with Heteropoly Blue Analysis: Single-Laboratory Validation", 2013, is incorporated by reference.

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